

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Takuya MONJU et al.

Group Art Unit: 1774

Application No.: 09/411,322

Examiner: B. Shewareged

Filed: October 4, 1999

Docket No.: 104472

For: THERMAL TRANSFER RECORDING MEDIA

DECLARATION UNDER 37 C.F.R. §1.132

I, Takuya Monju, a citizen of Japan, hereby declare and state:

1. I have a Masters Degree in Macromolecule Engineering which was conferred upon me by Fukui University in Fukui, Japan, in 1994.

2. I have been employed by Sony Chemical Corp. since 1997 and I have had a total of 6 years of work and research experience in Research & Development Department, Media and Chemical Division.

I and/or those under my direct supervision and control have conducted the following tests:

Thermal transfer recording media were prepared and tested as disclosed by the Examples and Comparative Examples in the original specification.

EXAMPLE 9

A release layer composition was prepared from 9 parts by weight of a montan wax and 1 part by weight of an ethylene-vinyl acetate copolymer; a solvent resistant layer composition was prepared from 7 parts by weight of a polyester resin and 3 parts by weight of a polyethylene wax; and an ink layer composition was formed from 7 parts by weight of a ketone resin and 3 parts by weight of carbon black. A thermal transfer recording medium was

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prepared from the release layer formed on a polyester film, the solvent resistant layer formed on the release layer, and the ink layer formed on the solvent resistant layer.

COMPARATIVE EXAMPLE 5

A thermal transfer recording medium was prepared by the same procedure as in Example 9 except that a composition for forming a solvent resistant layer containing 10 parts by weight of polyethylene wax with no addition of polyester resin was used to form the solvent resistant layer.

RESULTS

The thermal transfer recording media were evaluated by the same evaluation aspects as disclosed in the specification at pages 15-17. The results are shown in the Table, and in the enclosed solvent resistance test result.

TABLE

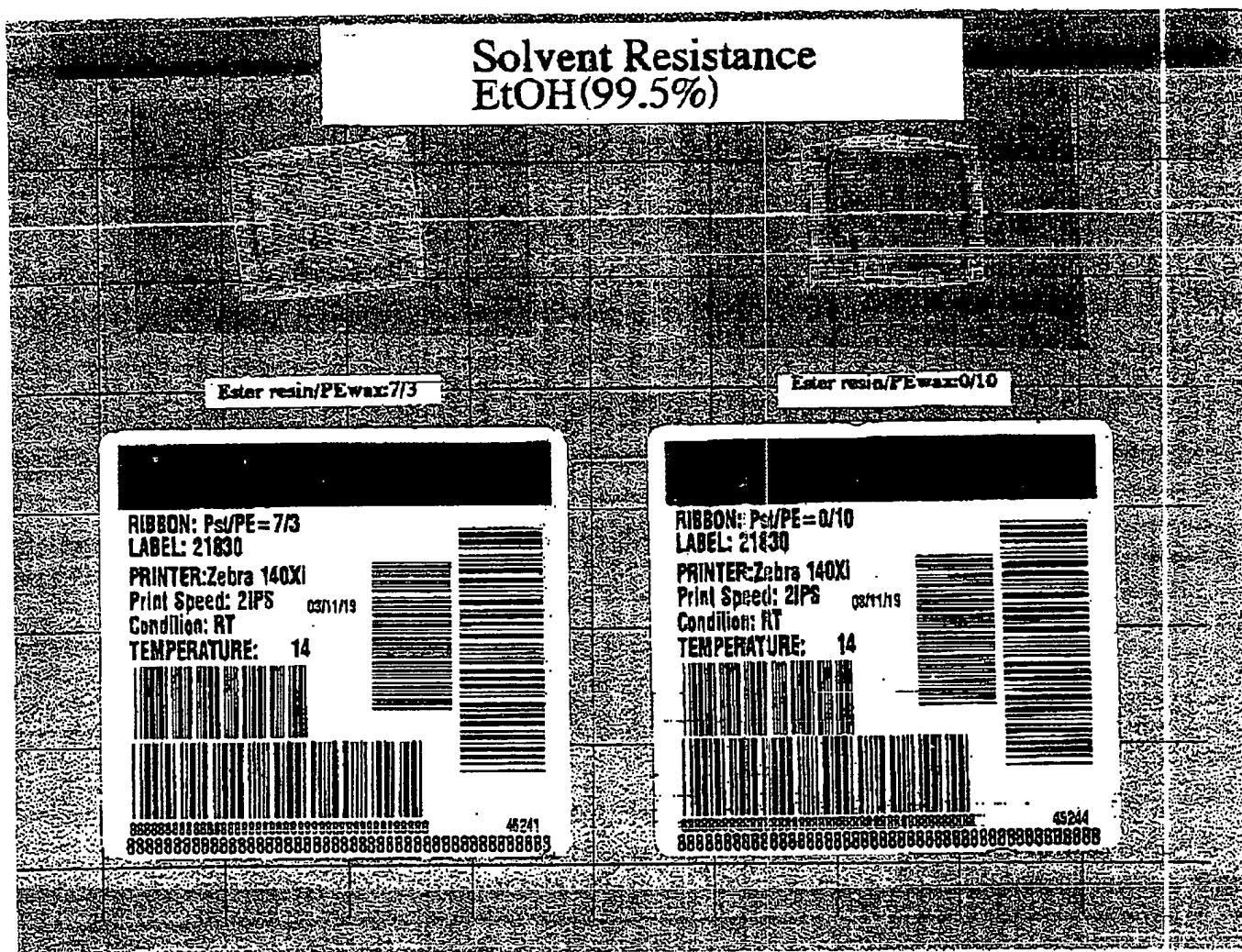
	Solvent resistance layer		Ink layer	Result			
	Polyester	PE wax		Coatingability	Solvent Resistance	Print quality	Print sensitivity
Example 9	7	3	Ketone resin	Good	Good	Fair	Good
Comparative Example 5	0	10	Ketone resin	Good	Poor	Fair	Good

Polyester resin: Elitel UE3350 (Unitica Co.)

Ketone resin: Hallon80 (Honshuu Chemical Co.)

PE wax: Sunwax 151P (Sanyo Kasei Co.)

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EVALUATION RESULTS

The Table and example of the solvent resistance test result show that the thermal transfer recording media of Example 9, having a polyester resin/polyethylene wax composition within the scope of the claims, has good coating properties and good solvent resistance. However, the thermal transfer recording media of Comparative Example 5, having only polyethylene wax and with no addition of polyester resin in the solvent resistant layer had poor solvent resistance. The data demonstrates that thermal transfer recording media having a solvent resistant layer based on a combination of polyester resin and

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polyethylene wax within the scope of the claims has improved properties over a thermal transfer recording media having a solvent resistant layer based only on polyethylene wax.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and/or imprisonment under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Date: December 25, 2003Takuya Monju

Takuya MONJU